Inquiry on Federal Water Policy

Research Papers

Enquête sur la politique fédérale relative aux eaux

Documents de recherche

FEDERAL-PROVINCIAL CO-OPERATION IN WATER — AN EXPLORATORY EXAMINATION

by

InterGroup Consulting Economists Ltd.
Denis DePape

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March 1985
Winnipeg

THE INQUIRY ON FEDERAL WATER POLICY

The Inquiry on Federal Water Policy was appointed by the federal Minister of the Environment in January of 1984 under the authority of the Canada Water Act. The members were Peter H. Pearse, chairman; Françoise Bertrand, member; and James W. MacLaren, member. The Inquiry was required by its terms of reference to review matters of water policy and management within federal jurisdiction and to make recommendations.

This document is one of a series of research papers commissioned by the Inquiry to advance its investigation. The views and conclusions expressed in the research papers are those of the authors. Copies of research papers and information on the series may be obtained by writing to the Enquiry Centre, Environment Canada, Ottawa, Ontario K1A 0H3.

Frank Quinn
Director of Research

Abstract

This report has been prepared for the Inquiry on Federal Water Policy by InterGroup Consultants Ltd. It is one of several research studies being carried out by the Inquiry. The work was largely carried out between October and December of 1984.

The study provides an exploratory examination of water-related federal-provincial co-operation in accordance with terms of reference provided by the Inquiry. Particular emphasis is placed on identifying and discussing alternative approaches to such co-operation in the future.

Résumé

Ce rapport a été préparé pour l'Enquête sur la politique fédérale relative aux eaux par InterGroup Consultants Ltd. C'est un des projets de recherches financé par l'Enquête. Le travail a été principalement exécuté entre octobre et décembre 1984.

Cette étude fournit un examen exploratoire de la coopération fédérale-provinciale en matière hydrique tel que stipulé dans le mandat fournit par l'Enquête. L'emphase porte sur l'identification et la discussion d'alternatives pour une telle coopération dans le futur.

ACKNOWLEDGEMENTS

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Although the above assistance is gratefully acknowledged, InterGroup Consultants Ltd. takes responsibility for the contents of this report.

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CHAPTER 1
INTRODUCTION

A major feature of water management in Canada is the complex web of overlapping and often ambiguous federal and provincial jurisdictions. This environment is ripe for and has often been characterized by jurisdictional conflicts and intergovernmental disputes. At the same time, there is a recognition by the federal government and most provinces that real problems involving overlapping jurisdictions will only be solved through co-operation.

This situation was recognized at the federal level with enactment of The Canada Water Act in 1970. The first part of this act, which is administered by Environment Canada, focuses on federal-provincial co-operation and makes provision for various types of co-operative endeavours including joint consultative arrangements and federal-provincial agreements to plan and implement water resource programs. There has been a great deal of activity under this portion of the Canada Water Act since 1970. As well, water related federal-provincial co-operation has occurred through other federal programs. It is important for the Inquiry on Federal Water Policy to review this activity, and, on the basis of past results and emerging trends, identify possible avenues for future federal-provincial co-operation in water related areas.

The purpose of this report is to examine this topic with particular emphasis on identifying and discussing alternative possible arrangements for federal-provincial co-operation in planning and managing water resources in the medium term future. The terms of reference for this study, as provided by the Inquiry's research staff, called for three tasks to be carried out:

1. Assess the changing nature of federal-provincial co-operative undertakings in water planning and management over the past decade.

2. Review changing approaches to water resources planning and management by provincial governments that may be relevant to federal-provincial co-operative arrangements.

3. Recommend alternative arrangements for federal-provincial co-operation that would be appropriate for addressing newer water related issues and compatible with prevailing views on jurisdictional limitations.

Tasks 1 and 2 are intended to provide background perspectives for Task 3 which is the main thrust of the report. The two northern territories are not included in this study since their jurisdictional context is different and since they are the subject of a separate study by the Inquiry. Although not specified in the terms of reference, the topics of river basin planning and water issue conflict resolution were identified by the client representative as being of special interest. The study has been able to treat river basin planning quite extensively as it has been quite well documented. However, conflict resolution could not be addressed very elaborately as it is not well documented and a great deal of time and effort reviewing individual cases would have been required. To do any justice to this topic would require a separate study which would include not only the Canadian, but also the more extensive American experience.

The study was carried out using readily available documentation and a limited number of in-person and telephone interviews. Time and budget limitations precluded primary data gathering and an elaborate interview program. The primary sources of information used were:

1. Canada Water Act Annual Reports -- These reports review in considerable detail activities that occurred in the previous year under The Canada Water Act. Included is a listing and description of all federal-provincial programs that were active in that year and completed in previous years. An assessment was made of active programs in 1975-76, 1981-82 and programs completed during the years 1971-75, 1976-80, 1981-84, to identify major trends in federal-provincial programs under the Act. Tables and observations from this assessment are presented at the end of this chapter and are referred to throughout this study.

Some special information is included in the tables to provide a fuller appreciation of their contents:

a. Most of the programs identified in the tables are covered by federal-provincial agreements. Exceptions occur, however, with some pre-planning activities which take place without an agreement; these are noted in the tables.

b. In a number of cases federal-provincial agreements initiated prior to enactment of The Canada Water Act in 1970 were continued under the Act; these are included in the tables and then pre-1970 start-up status noted.

c. Environment Canada is the lead agency for activities under The Canada Water Act. However, in many cases, other federal departments have also participated in Canada Water Act agreements. This includes Agriculture Canada, the Department of Regional Industrial Expansion (DRIE) and its predecessor the Department of Regional Economic Expansion (DREE), Fisheries and Oceans (FAO), National Health and Welfare (NHW), Central Mortgage and Housing Corporation (CMHC), the Ministry of Transport (MOT), the Department of Indian Affairs and Northern Development (DIAND), and the Department of Public Works (DPW). The tables note where these other departments were involved.

2. Interviews with Senior Provincial Officials -- Lengthy in-person or pre-arranged telephone interviews were conducted with senior water officials in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island. Three major areas were addressed in the interviews: (a) interesting and innovative organization, planning and management approaches to water being used or contemplated by the province; (b) their views on water related federal-provincial co-operation since enactment of The Canada Water Act; (c) their suggestions on what arrangements might be adopted to enhance federal-provincial co-operation in the future. These interviews produced many useful perspectives that

are noted specifically or reflected in this report. While not all provinces were interviewed, those that were provide a good cross-section of views and experience on the topics covered in the interviews. Some officials were reluctant to be quoted or specifically identified in the report. For this reason, the province(s) that made certain suggestions are often not identified in the text, even though such information would be useful.

3. Submissions to the Inquiry -- Submissions made to the Inquiry that addressed or referred to the area of federal co-operation were reviewed. These include submissions made by the provinces, by federal agencies and by some individuals and interest groups. In total, fifteen submissions were reviewed. These submissions provided many useful details and perspectives on the experience to date with federal-provincial co-operation and some ideas on where alternative or additional arrangements might be relevant in the future. They were especially relevant in providing an understanding of the views of federal agencies toward these topics.

4. Review of Key Relevant Studies and Articles -- A number of relevant articles and studies were reviewed. Particularly well documented and useful were the following recent items on river basin planning:

   (a) Environment Canada Evaluation Team. An Evaluation of the Planning and Implementation Programs. Ottawa, Ontario, November, 1981.

   (b) B. Mitchell and S.S. Gardner (eds). River Basin Management: Canadian Experiences. University of Waterloo, 1983.

The results of our information gathering indicate that there has been a great deal of federal-provincial co-operation in water related areas since 1970. This can be broken down into several categories and sub-categories which we have used to organize the remaining sections of this report.

1. Federal-Provincial Agreements -- This is the major area of activity. Since 1970, about 60 federal-provincial programs have been carried out under The Canada Water Act for planning and implementation of water programs, water regulation and data collection and the Flood Damage Reduction Program. Of these, about 55 have been federal-provincial agreements; the remainder have been pre-planning studies without agreements. Five of the agreements were initiated prior to 1970 but continued under The Canada Water Act. As shown in Table 1, there were between 26 and 38 active agreements in the three years that we examined

and 24 agreements had been completed by 1983. There have been agreements in all provinces under The Canada Water Act.

TABLE 1

CATEGORIES OF ACTIVE AND COMPLETED FEDERAL-PROVINCIAL AGREEMENTS UNDER THE CANADA WATER ACT IN SELECTED YEARS

Category of Program	Active[1] During the Year			Completed in Previous Years		
	1975-1976	1980-1981	1983-1984	1971-1975	1976-1980	1981-1983
PLANNING AND IMPLEMENTATION						
- Planning Studies	8	5	6	5	7	2
- Implementation Agreements	6	5	4	0	4	1
	14	10	10	5	11	3
REGULATION & DATA COLLECTION						
- Regulation and Apportionment	1	2	2	-	-	1
- Inventories, Surveys and Monitoring	10	13	13	1	-	1
	11	15	15	1	-	2
FLOOD DAMAGE REDUCTION PROGRAM						
- Project Specific	0	2	5	-	1	1
- Province-Wide	1	6	8	-	-	-
	1	8	13	-	1	1
Total	26	33	38	6	12	6

[1] Excludes projects under negotiation.

Table 2 shows the provincial distribution of agreements in 1975-76, 1980-81 and 1983-84. In each of these years, nearly all provinces had two or more agreements, while British Columbia, Saskatchewan, Manitoba, Ontario and, in the last two of the years, Quebec, have had five or more active agreements. This is an impressive amount and composition of activity and indicates an obvious interest in such programs and agreements by both the federal and provincial governments. In looking at possible alternative arrangements for the future, the significant degree of co-operation that has been achieved to date with the prevailing agreement structure must be heeded. Change for the sake of change, or for some apparent emerging trend, should be pursued with great caution. Most agreements involve sharing of costs and resources by the federal and provincial governments. The federal government, usually through Environment

Canada, provides work and expertise as well as funding. Exceptions occur in certain agreements with Quebec where the federal government provides only funding. The provincial government does all of the work and provides all of the funding. Agreement management structures vary considerably.

TABLE 2

PROVINCIAL GOVERNMENT PARTICIPATION IN AGREEMENTS UNDER THE CANADA WATER ACT

Province	Number of Active Programs in 1975-76	1980-81	1983-84
British Columbia	4	6	6
Alberta	2	3	2
Saskatchewan	6	6	5
Manitoba	4	8	8
Ontario	6	7	5
Quebec	3	6	9
New Brunswick	2	4	2
Nova Scotia	2	3	2
Prince Edward Island	1	1	2
Newfoundland	2	2	3

In addition to these agreements sponsored by Environment Canada under The Canada Water Act, there have also been numerous water related federal-provincial agreements sponsored by other federal departments, in particular, the Department of Regional Industrial Expansion (DRIE) and its predecessor, the Department of Regional Economic Expansion (DREE). We did not determine the number of these agreements, however, there were at least fifteen.

These federal-provincial agreements can be broken down into two broad categories according to their geographic sphere:

(a) Basin or water body oriented agreements -- These agreements pertain to a specific river basin, sub-basin, portion of basin, or water body, and are usually identified by that basin or water body. All agreements in this category were sponsored by Environment Canada. Within this category there are two relevant sub-categories:

(i) Comprehensive River Basin Planning and Implementation Agreement -- In the context of The Canada Water

Act, this is an area in which the federal government undertook a leadership role trying to encourage the provinces to participate in such studies. As a result, it has been a topic of special interest in considering the experience to date under The Canada Water Act. Notable features of the comprehensive basin planning approach were the emphasis on looking at the whole river basin and at multiple water related issues within the basin. Agreements in this category are presented in Table 3.

(ii) Specific Issue Oriented Agreements -- Agreements in this category are much more focused than comprehensive basin agreements. They can pertain to less than a full river basin and to one, or a few, water related issues in the area being considered. Many of the agreements in this area have been developed in response to immediate requirements to resolve a water conflict and to specific requests from the provinces. Tables 4, 5, 6, 7 and 8 present agreements in this category according to five classes of issues.

(b) Province-wide agreements -- These agreements address particular water related issues on a province-wide rather than basin or water body basis. This category includes agreements sponsored by Environment Canada and by other federal departments. As shown in Table 9, those sponsored by Environment Canada consist of the Flood Damage Reduction Program and the water quantity surveys. In the Prairie Provinces, in particular, where the Prairie Farm Rehabilitation Program (PFRA) is active, agreements sponsored by other agencies are a major aspect of federal-provincial water related activities.

2. Non-Agreement Activities -- This is a much less conspicuous, and often quite informal, area of federal-provincial activities. Relatively little, except in regard to pre-planning studies, was discovered about this area in this study although it was considered important to most of the provincial officials that we interviewed. The main thrusts appear to be information exchange and joint work sharing projects that are not appropriate for an agreement (e.g., pre-planning studies; technical workshops on benefit-cost analysis, water modelling, etc., exchange of technical advice).

While conducting this study, a number of items emerged that have or could have an overriding influence on federal-provincial co-

operation in the water area. These are major elements of the environment in which co-operation occurs and therefore must be kept in mind in discussing any possible future arrangements for federal-provincial co-operation.

1. Provincial Attitude to Federal Intrusion -- There are differing attitudes among provinces about getting involved with the federal government on joint projects. This attitude usually is not unique to water projects but rather applies to federal-provincial projects in general. A spectrum exists from provinces that are highly protective of their jurisdictions and will only participate in federal-provincial activities where it is essential, to provinces that, while concerned about maintaining their jurisdictions, are generally quite interested in participating in joint programs. The opportunity to obtain federal funds is often a key motivating factor in the last group. Interestingly, the extreme ends of the spectrum are represented by prairie provinces. Alberta has consistently been very reluctant to enter into federal-provincial agreements, while Manitoba and Saskatchewan have consistently sought out such agreements. The remaining provinces have generally been in between.

   Provinces have sometimes shifted their outlook to water related federal-provincial co-operative activity as governments or circumstances have changed. A notable example of particular relevance to water is British Columbia. One of the principal participants in water related federal-provincial agreements since 1970, this province has recently become significantly less willing to participate in further agreements.

   The presence of these differing attitudes means that it will always be difficult to get all provinces involved in various federal-provincial activities. This is particularly true in areas where the federal government wants to provide leadership. For this reason, arrangements for federal-provincial co-operation must be flexible and capable of addressing provincial, as well as federal, interests. This probably means that a variety, rather than one type, of arrangement is needed. The approach to date recognizes this by having diversity of agreement and non-agreement arrangements.

2. Government Fiscal Restraint -- An increasingly prevalent and prominent feature of the federal and provincial government scene is fiscal restraint and even cutbacks. This is in sharp contrast to the early and mid-1970s when governments were expanding rapidly. This feature has already affected water related activities in most provinces and federal government. It will likely become more severe in the future. If it does,

there will be fewer federal resources available in real terms for federal-provincial co-operative activities in the water area. This will make co-operation more difficult as it likely will mean that federal water agencies will have to take a more restricted view of what is in the national interest when deciding projects to undertake. The corollary to this is that the degree of admissible provincial interest in proposed activities will be diminished.

At the same time, from the provincial standpoint, various responses to their internal fiscal constraints can occur that will be relevant for federal-provincial co-operation. Some provinces will retrench their involvement in joint activities arguing that, while such activities provide access to federal dollars, they more importantly impose demands on provincial resources. This appears to be the approach adopted recently by British Columbia in conjunction with government cutback programs that they introduced. At the other extreme, provinces will try harder to get federal involvement and resources to help offset the effects of provincial cutbacks.

These and other possible responses to fiscal restraints and cutbacks are likely to be an integral part of the environment for federal-provincial co-operation in the near or medium term future. They are likely to produce a more strained environment for federal-provincial co-operation at least in the short term. In the long term, the situation might improve as it becomes apparent that sharing and co-operation become inceasingly relevant as available resources decline. Future federal-provincial arrangements should be capable of adapting to changes in the general level of co-operativeness.

Most of the remainder of this report examines experience to date and identifies alternative possible arrangements for federal-provincial co-operation according to the previously noted categories of activity. Chapters 2, 3 and 4 address federal-provincial agreements with Chapter 2 covering comprehensive river basin planning and implementation, Chapter 3 specific issue oriented agreements, and Chapter 4 province-wide agreements. Chapter 5 is concerned with non-agreement activities, while Chapter 6 presents some concluding perspectives.

TABLE 3

ACTIVE AND COMPLETED FEDERAL-PROVINCIAL PROGRAMS UNDER THE CANADA WATER ACT
COMPREHENSIVE RIVER BASIN PLANNING AND IMPLEMENTATION

Active	1975-76	1980-81	1983-84
pre-planning (no agreements)	-Lower Saskatchewan River	-Thompson River	
planning	-Shubenacadie-Stewiacke -Souris	-Shubenacadie-Stewiacke	
implementation	-Okanagan basin (also CMHC) -Qu'Appelle basin (also DREE, DIAND, CMHC)	-Okanagan basin -Qu'Appelle basin -Souris*	-Qu'Appelle -Souris*

Completed	1971-75	1976-80	1981-83
pre-planning (no agreements)	-Saskatchewan-Nelson basin (1973) (pre-1970 start-up)	-Lower Saskatchewan River (1979)	-Thompson River (1981)
planning	-Qu'Appelle (1972) -Okanagan (1974) -Saint John (1975)	-Souris (1978)	-Shubenacadie-Stewiacke (1982)
implementation			-Okanagan (1982)

* Recommendations dealing with floods and water supply are being implemented within The Canada-Manitoba Flood Damage Reduction Agreement and The Canada-Saskatchewan Subsidiary Agreement (DREE).

TABLE 4

ACTIVE AND COMPLETED FEDERAL-PROVINCIAL PROGRAMS UNDER THE CANADA WATER ACT FRAMEWORK AND SPECIFIC ISSUE BASIN PLANNING

Active	1975-76	1980-81	1983-84
pre-planning (no agreement)	-Mackenzie River Basin Committee (also DIAND, MOT)	-Winter River (reliability of water supply system)	
planning -framework study		-Mackenzie River Basin Study (also DIAND, MOT)	-Yukon River (also DIAND)
-specific issue study		-Fraser River Estuary (estuary planning)(also FAO)	-Fraser River Estuary
		-Waterford River (urbanization effects)	-Waterford River -Winter River
implementation planning			-Mackenzie River Basin Committee (also DIAND, MOT)

Completed	1971-75	1976-80	1981-83
pre-planning (no agreements)		-Yukon River (1979)	-Winter River (1983)
planning -framework study			-Mackenzie River Basin Study (1982)

TABLE 5

ACTIVE AND COMPLETED FEDERAL-PROVINCIAL PROGRAMS UNDER THE CANADA WATER ACT
FLOOD PROTECTION AND FLOW REGULATION

Active	1975-76	1980-81	1983-84
planning	-Flow Regulation - Montreal region -Fraser River Upstream Storage		
implementation	-Lower Fraser Valley Flood Control -Southwestern Ontario Dyking (also Agriculture)	-Lower Fraser Valley Flood Control -Flood Proofing - Red River Valley	-Lower Fraser Valley Flood Control
Flood Damage Reduction Program (since 1976)		-Flood Management - Marsh Creek, B.C. -Dykes and Flow Regulation - Montreal region	-Flood Management - Marsh Creek, B.C.; Dykes and Flow Regulation - Montreal region; Upgrading Dykes - Red River Valley; Mille Iles Flood Control Structure - Montreal Region; Quebec City Flood Control

Completed	1971-75	1976-80	1981-83
planning		-Flow Regulation - Montreal region (1976) -Fraser River Upstream Storage (1976)	-Flood Proofing - Red River Valley (1981)
implementation		-Southwestern Ontario Dyking (1979)	
Flood Damage Reduction Program		-Southeastern New Brunswick Dyking (1978)	-Dykes and Flow Regulation - Montreal region (1981)

TABLE 6

ACTIVE AND COMPLETED FEDERAL-PROVINCIAL PROGRAMS UNDER THE CANADA WATER ACT
WATER QUALITY ASSESSMENT OR MANAGEMENT

Active	1975-76	1980-81	1983-84
planning	-St. Lawrence River -Lower Great Lakes	-Lake Winnipeg	
implementation		-Great Lakes	-Great Lakes
inventory, monitoring and surveys			-Ottawa River Co-ordinating Committee

Completed	1971-75	1976-80	1981-83
planning		-St. Lawrence River (1978)	-Lake Winnipeg (deferred)

TABLE 7

ACTIVE AND COMPLETED FEDERAL-PROVINCIAL PROGRAMS UNDER THE CANADA WATER ACT
MAJOR PROJECT IMPACT ASSESSMENT/MITIGATION

Active	1975-76	1980-81	1983-84
planning	-Churchill River		-English-Wabigoon Mercury Contamination (also FAO,NHW)
implementation	-Peace Athabasca Delta		-Churchill River Diversion Mercury
inventory, monitoring and surveys		-Garrison Diversion Water Quality Monitoring -St. Lawrence North Shore Ecological Inventory	-Garrison Diversion Water Quality Monitoring(also FAO) -St. Lawrence North Shore Ecological Inventory

Completed	1971-75	1976-80	1981-83
planning	-Peace Athabasca Delta (1972) -Lake Winnipeg, Churchill and Nelson Rivers (1975)		
implementation		-Peace Athabasca Delta (1976)	

TABLE 8

ACTIVE AND COMPLETED FEDERAL-PROVINCIAL PROGRAMS UNDER THE CANADA WATER ACT
OTHER SPECIFIC ISSUE ORIENTED AGREEMENTS

Active	1975-76	1980-81	1983-84
implementation - Canada Water Conservation Assistance Act Agreements	-Metropolitan Toronto (pre-1970 start-up) -Upper Thames (pre-1970 start-up)		
regulation and apportionment	-Prairie Provinces Water Board	-Prairie Provinces Water Board -Ottawa River Regulation Planning Committee (also DPW)	-Prairie Provinces Water Board -Ottawa River Regulation Planning Board
other	-Northern Ontario Water Resources (pre-1970 start-up)		

Completed	1971-75	1976-80	1981-83
planning		-Northern Ontario Water Resources (1978) (pre-1970 start-up)	
implementation - Canada Water Conservation Assistance Act Agreements		-Metropolitan Toronto (1978)(pre-1970 start-up) -Upper Thames (1979) (pre-1970 start-up)	
regulation and apportionment			-Ottawa River Regulation Planning Committee
inventories, surveys and monitoring	-Great Lakes Shore Damage Survey (1975)		-Great Lakes Shore Damage Survey implementation (1981)

TABLE 9

ACTIVE AND COMPLETED FEDERAL-PROVINCIAL PROGRAMS UNDER THE CANADA WATER ACT

PROVINCE-WIDE PROGRAMS

Active	1975-76	1980-81	1983-84
Flood Damage Reduction Program (since 1976)	-Agreement with New Brunswick	-Agreements with New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and Northwest Territories	-Agreements with Newfoundland, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and Northwest Territories
Continuing Surveys	-Water Quantity Surveys -- all provinces (pre-1970 start-up)	-Water Quantity Surveys -- all provinces (pre-1970 start-up)	-Water Quantity surveys -- all provinces (pre-1970 start-up)
Completed	**1971-75**	**1976-80**	**1981-83**
all programs are still active			

CHAPTER 2

COMPREHENSIVE BASIN PLANNING AND IMPLEMENTATION AGREEMENTS

The Canada Water Act of 1970 enabled the federal government to enter into agreements with the provinces for water related planning and implementation projects. The Act stated that:

> "... with respect to any waters where there is a significant national interest in the water resource management thereof, from time to time to enter into agreements with one or more provincial governments to ...
>
> (d) formulate comprehensive water resource management plans .. based upon an examination of the full range of reasonable alternatives and taking into account views expressed at public hearings and otherwise by persons likely to be affected by implementation of the plans;
>
> (e) design projects for the efficient conservation, development and utilization of those waters; and
>
> (f) implement any plans or projects referred to in paragraphs (d) and (e), and establishing or naming joint commissions, boards or other bodies empowered to direct, supervise and co-ordinate such programs."

While not stated specifically in the Act, it was expected at the time of enactment that comprehensive river basin planning studies and their subsequent implementation would be the center piece for federal-provincial co-operation in this area. Other, more issue specific, federal-provincial planning and implementation projects were expected to emerge, but comprehensive river basin planning and implementation was the area in which the federal government would focus its leadership and encourage provincial involvement.

Federal interest and leadership in this area arose from initiatives that began in 1967 when the federal minister responsible for co-ordinating water programs invited some provincial counterparts to finance jointly a pilot project in river basin planning in each of the major regions of Canada, i.e., the Atlantic, Quebec, Ontario, the Prairie Provinces

and British Columbia. During the initial years after the Act came into effect, this continued to be the main thrust of federal involvement and leadership in federal-provincial planning and implementation. In the Federal Policy Statement on Inland Waters issued in 1978, the Cabinet reaffirmed the significance of joint basin planning and also noted the relationship between planning and implementation in the following statements:

4. Joint, cost-shared federal-provincial comprehensive river basin studies are recognized as the primary means of planning for multi-purpose water use, and public participation is considered to be an integral and vital part of such studies.

5. The federal government will not provide funds for the implementation of water programs unless it has first participated in the planning of these programs or has satisfied itself that the national aspects have been given full consideration.

The status of federal-provincial comprehensive basin planning and implementation program is depicted in Table 3. Several key observations emerge from this table. These, supplemented by perspectives drawn from other relevant information sources reviewed during the study, are as follows:

1. Since 1971, five joint comprehensive basin planning studies have been completed, i.e., Qu'Appelle, Okanagan, Saint John, Souris and Shubenacadie-Stewiacke. Implementation has, or is, occurring in most of these plans, however, only the Qu'Appelle and Okanagan have in place federal-provincial agreements under The Canada Water Act for plan implementation. Plans in the remaining basins are being implemented under specific issue agreements with Environment Canada (e.g., the Flood Damage Reduction Program), under federal-provincial agreements involving other federal government agencies (i.e., DREE or DRIE) or exclusively by the province involved. The variety of implementation approaches is indicative of the varying degrees of acceptance of the basin plans by the governments involved and the diversity of agencies that have a role in implementing water programs. There have also been three pre-planning studies that have not yet led to detailed comprehensive planning under the Act, i.e., Lower Saskatchewan River, Thompson River, Winter River. However, the Province of Alberta is carrying out a comprehensive planning study on the portion of the South Saskatchewan River basin in Alberta, while Saskatchewan is consider-

ing undertaking a similar study with federal assistance for the Saskatchewan portion of the same basin. As such, some detailed planning is occurring or emerging relative to one of the above pre-planning studies. Although not shown, each of the five planning studies also had a pre-planning stage.

2. There has been a significant decline in joint river basin planning from the first five years of the agreement, i.e., 1971 to 1975 to subsequent years. During the first five years, all five planning studies were active at some time and three were completed. During the next five years, two planning studies were active and one was completed. Between 1981 and 1983, one planning study was active and subsequently completed. No comprehensive planning studies are occurring at present. This trend of declining activity in joint basin planning has been attributed to a number of factors, most of which have been identified in an Environment Canada evaluation of joint river basin planning and implementation programs. These factors are:

   (a) Fiscal restraint by the federal government, which started to become significant in the late 1970s. River basin planning was expensive in itself, but also carried with it the potential for much greater expenditures if the plans were implemented. Also, such planning is highly anticipatory rather than reactive in nature. It is generally more difficult to get political support for such activities.

   (b) There were problems with the planning process which discouraged participants in particular provincial governments and some involved publics. These problems which have been described and summarized in a number of sources, i.e., the aforementioned evaluation (1981), O'Riordan (1981) and Mitchell (1983), included the following:

      (i) studies took too long to complete;
      (ii) much of the work was of limited relevance; a focus on addressing pressing and major issues was lacking. As a result, the product was overly costly;
      (iii) recommendations were often too numerous, ambiguous and abstract to help the implementing agencies. This also made them difficult to implement;
      (iv) the transition from planning to implementation was slow and lacked co-ordination;
      (v) operating in the federal-provincial agreement environment was administratively cumbersome.

(c) Planning that in the early 1970s would have fallen under the purview of comprehensive basin planning was being picked up in a piecemeal way by other projects or programs. This included issue specific federal-provincial agreements under The Canada Water Act, the Flood Damage Reduction Program under The Canada Water Act, Canada-U.S. agreements dealing with water and federal-provincial agreements with DREE dealing with water resource development.

(d) A shift in interest occurred with respect to federal-provincial agreements under The Canada Water Act from the comprehensive basin approach to addressing specific issues. This, in part, was an outgrowth of the dissatisfaction with the comprehensive basin planning approach noted in item (b) above. It also reflects an increased willingness on the part of the federal government to support planning projects requested by provincial governments.

3. The joint planning basin studies cover three of the five regions of the country that they were originally intended to reach. Two plans were developed in the Prairie Provinces and in the Atlantic, one in British Columbia and none in Ontario and Quebec. The latter two provinces declined an invitation to participate in a comprehensive basin planning study of the Ottawa River. In the late 1970s and early 1980s these provinces entered into two issue specific federal-provincial studies pertaining to the Ottawa River, one on water quality and another on flow regulation.

The impression that one gets from reviewing the federal-provincial experience on basin planning is that comprehensive river basin planning and implementation is on the way out. It was an idea for the late 1960s and 1970s but not the 1980s. There are simply too many problems, insufficient resources and not enough interest in this area to sustain it in the future. As well, many of the functions handled by comprehensive basin planning are being undertaken in other ways. Although not stated directly, this view seems to be reflected in the following suggestions made at the end of the Environment Canada evaluation:

> "we feel that when existing commitments terminate it may be more appropriate that any further basin related work be undertaken in conjunction with other water programs as follows:

1. River Basin Planning and Basin Planning Implementation and Interprovincial Programs be merged into a program concerned with Federal-Provincial-Territorial waters; and

2. Canada-U.S. transboundary related projects/issues be addressed under a 'Canada-U.S. Program'."

Adopting this suggestion would likely ensure that real and implicit federal leadership in the area of comprehensive river basin planning would be greatly downplayed.

Although comprehensive basin planning and implementation appears to be waning as an area of federal leadership and federal-provincial involvement, there remains a great deal of interest in many of the provinces in basin planning and management. Many provinces, particularly in the western part of the country, have organized some or all of their water resource administration and activities around watersheds and river basins. In these provinces, watershed or basin planning projects are being carried out or contemplated.

The experience with basin planning carried out under The Canada Water Act, as well as the more recent and ongoing provincially led developments provide certain insights and perspectives for shaping a continuing federal presence in this general area. During the conduct of this study, partially as a result of interviews with provincial officials and partially as a result of a review of available documentation, a number of pertinent situations and developments have been identified. These are discussed as follows:[1/]

[1/] This may not be complete since our interviews did not include all of the provinces.

British Columbia -- In the early 1980s, the Province of British Columbia initialed a strategic planning approach to establish management policies, priorities, and plans at the provincial, regional, basin and sub-basin level for water and other environmental resources, i.e., fish, marine resources, wildlife, air quality. The essence of this process involves a series of environmental resource or basin plans to be prepared for 40 planning units in the province. The area of these planning units is based on river basins or portions of the provinces, larger river basins or combinations of smaller watersheds. The results of the basin plans would be integrated upward to formulate regional and provincial policies. They would also act as the basis for sub-basin operational planning and specific resource management actions. In addition, they would be used laterally in the development of integrated multiple resource management plans. The process of developing the plans sought to avoid some of the problems encountered in the comprehensive river basin studies, while at the same time, making use of positive features. To speed up the initial planning process, only existing data and information were used. Any needed improvements in data were built into the plan. To maximize the prospects for plan implementation, there was extensive consultation during the planning process with departmental officials that would be responsible for implementation. As well, the strategic planning approach was built right into the departmental budget. Recommendations from the plans were costed and inserted into the following years' budget estimates.

The original intent was to complete 6 to 8 plans per year until all the plans were done. Some of the plans have been completed, however, the planning process has been significantly retarded by the British Columbia government's major fiscal restraint program introduced in 1983. There has been a shift in emphasis away from planning in general towards a more reactive approach to water management. Development of a provincial and regional computerized management information system has become a priority. Hardly any time is now devoted to preparing basin plans. The little that is done occurs on those basins where significant, pressing problems exist.

Ontario -- Water resource management is divided between two ministries:

(a) Ministry of Environment -- responsible for water quality oriented matters;

(b) Ministry of Natural Resources -- responsible for water quantity oriented matters; also oversees the Conservation Authorities discussed further below.

These agencies have supported several major basin planning initiatives in the Toronto area. Depending on the experience with these, additional major planning studies may be carried out in other locations in Ontario. Basin planning is regarded as an important area of future activity by the Ministry of Environment. The Ministry would like to devote considerably more attention to this area in the future than it has in the past few years.

A key element in water and other resource management in Ontario are 39 Conservation Authorities, some of which have been in existence for more than 35 years. These Authorities are designed to enable municipal management of some aspects of natural resource activity within the Conservation Areas. Their boundaries are linked to watersheds with some adjustment for municipal boundaries. Watershed and basin overlaps do occur and this has led to a number of inter-authority management exercises.

In 1979, the provincial government directed each Conservation Authority to prepare a watershed plan. Such plans were deemed necessary to enable the Conservation Authorities to function more effectively as there had been considerable concern about the inadequacies of the Authorities in fulfilling their mandates. There has been considerable progress in the development of the watershed plans to date.

Manitoba -- In the mid-1970s, Manitoba moved into establishing Soil and Water Conservation Districts to devolve some soil and water management functions to the municipalities. So far, five moderately sized Districts have been formed and special efforts are being contemplated to encourage the formation of more of these. While the boundaries of the Districts correspond to the municipal boundaries of the included municipalities, an effort is made in the formation of the Districts to include municipalities that comprise particular watersheds or river basins. Once a District is formed, they are supposed to develop a resource management plan that will provide a basis for their actions and programs. There have been difficulties in getting these plans, which are similar to watershed plans, developed. An approach centered around overlay mapping appears to be gaining acceptance.

Alberta -- Alberta did not participate in any of the federal-provincial basin planning studies due to a general reluctance to participate in any water related federal-provincial agreement. In spite of this, Alberta has been a leader in Canada in river basin planning and management since the mid-1970s. The province has been divided into six river basin planning

areas and a basin planner has been assigned to each. Broadly oriented basin plans have either been developed, or are in the process of being developed, for each basin. In each case, the planning exercises have included substantial public participation programs. While basin planning is well established in the province, it is regarded as secondary to land use planning. There is no legal requirement to produce and implement river basin plans whereas there is such a requirement for land use plans.

As part of this planning exercise, Alberta recently completed one of the most ambitious and elaborate basin planning projects ever undertaken in Canada. This is the South Saskatchewan Basin Planning Project. This study, which pertains to three interrelated tributaries that flow into the South Saskatchewan River, seeks to develop a strategy for basin management before getting into the details of program and project determination and design. It focuses on developing responses to three questions about water use priorities, water management priorities and the degree of utilization of the three tributaries given the Prairie Provinces Master Agreement on Apportionment. Public hearings were held in fall 1984 by the Alberta Water Resources Commission, in directly affected communities. The study will be shepherded through the provincial government decision making process by the Alberta Water Resources Commission which has the mandate to co-ordinate and advise the Cabinet on water related questions in the province.

Saskatchewan -- In mid 1984, this province consolidated all of its water related activities, except for water quality, into one organization, the Saskatchewan Water Corporation. While such a consolidation is not new (e.g., the Water Resources Branch in Manitoba has nearly the same scope of functions as the Saskatchewan Water Corporation), inclusion of water activities into a Crown corporation is unprecedented. The Corporation has divided the province into six regions that reflect the boundaries of all or a portion of the major river basins in the province. Regional offices and advisory committees have been established in each region.

A principal activity that the Corporation is in a hurry to get under way is development of basin plans for the six basins in the southern and central parts of the province. The intent is to complete the plans quickly so they may be used in operational planning and in making day-to-day water management decisions. Extensive involvement of regional staff and advisory groups is contemplated to ensure their commitment to the plans. For example, these groups would have a major say in the priority issues to be addressed in the planning process.

The Water Corporation would like to have federal assistance in undertaking all of these plans since the Corporation does not have the financial resources to do this on their own over a reasonable span of time.

Requests for assistance have been initiated with Environment Canada. Corporation officials express some concern that the federal pre-planning process is overly time consuming and unnecessary and will hamper timely delivery of the plans. Also, the need to satisfy the national interest requirement may preclude federal involvement in some plans.

Nova Scotia -- This province does not have a formal basin planning program, however, the need for such a program is clearly recognized. Nova Scotia's brief to the Inquiry states:

"The tendency to develop policies in response to specific water problems or during the assessment of an industrial undertaking has detracted from management of water on a comprehensive watershed or regional basis. Most water related activities have an impact on downstream users. A geographical unit, such as a watershed, provides an effective basis for considering the environmental and economic effects of allocating water supplies and water quality to specific users. Therefore, both levels of government should commit themselves to planning inter-jurisdictional water policy priorities on a watershed basis."

Prince Edward Island -- This province is becoming more involved in basin planning. All water planning is done on a watershed basis and increasingly this planning is moving from single issue to multiple issue/multiple use planning. Work is under way on a planning project that will consider various uses and user groups, including agricultural, municipal and commercial interests, in one of the province's watersheds.

The review of activities and developments in many of the provinces indicates a significant and possibly growing interest in basin planning at the provincial level. It is probably no coincidence that provincial initiatives in basin planning began to emerge in the mid-1970s after the main portion of the work on the federal-provincial basin planning studies had been completed. Undoubtedly, federal leadership in this area had an important impact on the provinces' behaviour. While there is likely little need for formally renewing federal leadership in

this area, there does appear to be a continuing need for the federal government to be able to participate in joint basin planning studies. This is apparent in the recent requests from Saskatchewan. Also the British Columbia experience suggests that as provincial government fiscal constraint programs occur, basin planning activities initiated by the province can suffer dramatically. If there was federal involvement in these activities, the adverse effects might noticeably be dampened.

This review of developments suggests that there could be several approaches that the federal government could adopt towards future participation in basin planning studies:

1. React on a case-by-case basis -- The federal government could be prepared to consider provincially initiated requests to conduct a joint basin planning study. Any such request would be assessed like any other request for water related planning or development assistance. Leadership for actually conducting the studies would be shifted from the federal to the provincial governments, but the opportunity would remain to carry out such studies on a joint federal-provincial basis. Each request would be assessed on its own merits relative to its contribution to the "national interest" and its priority to compete for available federal resources. With declining federal leadership in the area of comprehensive basin planning, this approach has in large part been adopted by the federal government. As such, choosing this approach for the future would represent a continuation of the status quo as it has emerged since the mid- to late 1970s.

2. Province-wide program -- This would be a more ambitious approach, which in many respects would be the basin planning equivalent of the Flood Damage Reduction Program. Instead of negotiating separate agreements for each basin study, an envelope agreement would be signed with interested provinces to carry out a series of basin planning studies within that province's jurisdiction. The agreement would set out certain principles about basin planning and management and about the planning process that both parties agree to, as well as a program for conducting the basin studies. Any major implementation expenditure obligations for the federal government arising from the plans would be subject to separate sub-agreements.

This approach could be adopted as an example of federal leadership, wherein the federal government would try to establish agreements with most of the provinces. The program would represent a way of encouraging the provinces to make greater use of a basin approach to water resource management and to conduct basin planning studies in many or most parts of the province. Most likely, however, it would be preferable to refrain from this leadership model given some of the difficulties experienced with the individual joint basin planning studies. Instead, the provinces could be given the responsibility for initiating requests for such agreements, after being informed that the federal government would be prepared to entertain such requests. This approach would create the opportunity for many more joint basin studies to be carried out than would the case-by-case approach.

Many studies that would be excluded on "national interest" grounds in a case-by-case approach could be included under a province-wide agreement. Of course, it would have to be decided before establishing this program whether having provinces engage in basin planning and management is itself in the "national interest".

There is a good chance that this program would be well received by some provinces. Saskatchewan appears to have an immediate interest and requirement for such an approach. With their growing interest in watershed and basin planning, Manitoba and Ontario would also likely be attracted to this approach. On the other hand, such provinces as British Columbia and Alberta who are very sensitive to any expansion of federal involvement, likely would not take up this type of program even though they are quite involved in basin planning.

3. Combination of 1 and 2 above -- It is possible also to envisage an approach in which both province-wide and case-by-case agreements could be considered. Province-wide agreements would be limited to carrying out smaller, less time consuming and costly studies, e.g., the type of basin studies carried out in British Columbia using only secondary sources. Case-by-case agreements would be used for the larger, more costly studies, e.g., those requiring significant primary data collection.

Regardless of the approach adopted for joint federal-provincial involvement in basin planning, it is important that the lessons learned from the earlier joint basin planning exercises be taken into account in establishing the study framework. It would seem appropriate for the

federal government to insist on certain conditions about the nature of the study process in negotiating either case-by-case or province-wide agreements. Relevant items identified in the Environment Canada evaluation study or in later basin studies carried out by the provinces include:

1. Continue to require a pre-planning stage and use it to establish a focus for planning studies -- During pre-planning, identify and define a small group of relevant issues to be addressed in the planning study and develop a work program for addressing these. If additional information is needed to sort or flesh out the issues or develop the work program, carry out the needed research at the pre-planning stage -- do not let this linger into the planning stage. Undertake sufficient work in the pre-planning stage to enable the development of sound estimates of the resources required to do the planning.

2. Adopt an iterative, cyclical approach to planning studies -- This would enable recommendations to be developed in stages throughout the study rather than all at the end. This could be conducive to faster response in terms of implementation for certain issues. It could also contribute to more effective public participation, and greater study flexibility by enabling a "structured review and reassessment process" as the planning study is occurring.

3. Assign priority to using secondary data sources -- Consider having two different types of planning studies -- an investigative study and an in-depth study. The investigative study would be limited to work based on secondary data sources. The in-depth study would use both secondary and primary data sources. The latter could be divided up so the part involving secondary data sources occurred first.

4. Place greater emphasis on developing practical and implementable recommendations -- This will require significant ongoing involvement of potential implementation agencies in the study program. Doing this may also reduce the transition time to implementation.

5. Provide for more flexibility in the study budgets -- This would allow for response to important unforeseen issues that emerge during the planning study.

6. Restrict the length of the planning study -- This should be no more than a year for an investigative study and two years for an in-depth study.

CHAPTER 3

SPECIFIC ISSUE ORIENTED AGREEMENTS

While the federal government originally sought to promote comprehensive river basin planning through The Canada Water Act, the provinces have frequently been interested in narrower, more specific water planning and implementation issues. In contrast to the comprehensive basin planning approach, provincial interests and requirements have often had the following characteristics:

1. concern over one or a small number of issues or problems rather than a wide range of these;

2. reference to a specific water body or a portion of a river basin rather than a whole river basin;

3. reaction to a problem that has emerged rather than anticipation of possible problems.

A major area of activity under The Canada Water Act has been issue specific federal-provincial agreements which, to a larger extent, address planning and implementation requirements that have been proposed or readily accepted by the provinces. Over 30 such agreements have been signed with the provinces under The Canada Water Act; this is almost triple the number of comprehensive river basin planning and implementation agreements. Most of these agreements are cost-shared on a 50/50 basis between the federal and provincial participants.

Tables 4, 5, 6, 7 and 8 indicate the status of these agreements for five topic or issue categories -- framework and specific issue planning (Table 4), flood protection and flow regulation (Table 5), water quality assessment or management (Table 6), major project impact assessment/mitigation (Table 7), and other agreement categories which include regulation and apportionment (Table 8).

Each agreement is listed once only. Where an agreement might fit into more than one category, we have arbitrarily assigned it

to the one we considered most appropriate. For example, the English-Wabigoon Mercury Contamination Agreement applies both to water quality assessment and major project impact assessment/mitigation; we have included it under major project impact assessment/mitigation because of its linkage to effluents from pulp and paper mills. These tables provide the basis for the following relevant insights about issue specific basin or water body oriented planning and implementation agreements:

1. The agreements encompass a wide variety of topics and issues including water supply system reliability, estuary planning, effects of urbanization, water resource development, flow regulation, flood control, water quality standards, sewage treatment technology, toxic substances in water, mercury pollution, project impact assessment, project impact mitigation, ecological inventory, water quality monitoring, water regulation and apportionment, shore damage surveys. For the most part, the agreements deal with the environmental and problem related aspects of water. This is consistent with the general orientation of Environment Canada which administers The Canada Water Act. A small number of agreements, including the Northern Ontario Water Resources and Yukon River Basin Agreements have focused on economic aspects and related opportunities. The Northern Ontario Water Resources project was initiated prior to enactment of The Canada Water Act.

   The variety of topics and issues covered in these agreements is indicative of a very flexible agreement framework capable of handling diverse interests and concerns as well as being adaptable to changing circumstances. This observation was reinforced also through discussions with provincial officials. While some complained that federal officials were being too restrictive in negotiating particular agreements, none considered the overall agreement framework to be inordinately restrictive. Several noted that the current agreement framework should continue, as it had proven quite adaptable in the past.

2. Issue specific agreements have been negotiated with all of the provinces. Five provinces have had five or more such agreements -- British Columbia, Saskatchewan, Manitoba, Ontario and Quebec. There have been fewer agreements with the remaining provinces either because of reluctance to participate in federal-provincial agreements (as in the case of Alberta) or because of the limited number of inland water issues that arise or can be deemed to be in the national interest (as in the case of the Atlantic provinces). The existence of multiple

issue specific agreements in many provinces, along with other federal-provincial agreement and non-agreement activities, has led to the formation of a host of federal-provincial agreements or project specific management and co-ordinating committees in many provinces. This is a source of concern of at least one province, New Brunswick, who would like to see this situation rationalized.

3. In contrast to the river basin planning agreements, there has been no noticeable decline in the number of issue specific federal-provincial agreements. Instead, the number of active agreements appears to have increased noticeably in recent years, i.e., moving from 13 active agreements in 1975-76 and 1980-81 to 19 in 1983-84.

   A continuing interest at the provincial level with issue specific agreements underlies this trend. Along with the growth in the number of agreements, there has been a small shift in the topics and issues covered. Agreements pertaining to framework and specific issue basin planning to flood protection and flow regulation and to major project impact assessment/mitigation have become more prevalent, while those related to implementation of the projects initiated prior to 1970 have become less prevalent. The changing pattern of topics and issues covered by agreements is a further indication of the adaptability of the issue oriented agreement framework.

Issue oriented agreements have become the mainstay of federal-provincial co-operation under The Canada Water Act. All provinces have participated in such agreements and, in general, provincial interest has been sustained. There is a good reason for this. The issue oriented agreements are quite flexible and open to provincial overtures. The agreements have permitted specific issues to be addressed on a water body or partial basin basis and they have often been used to react or respond to immediate problems. At the same time, provinces have the opportunity to take the lead in initiating an agreement. These characteristics are well suited to provincial requirements and to their sensitivity about federal infringement in areas of provincial jurisdiction.

Federal interests are also being served by this flexible agreement framework. It provides a highly adaptable mechanism for enticing the provinces to deal co-operatively with the federal government on an issue that may principally fall under provincial jurisdiction but may

also represent a federal concern. It is also a mechanism by which appropriate responses can be initiated to changing circumstances where federal-provincial co-operation is needed.

It is apparent from our review of agreements and discussions with provincial officials that one of the most enduring and appealing instruments of federal-provincial co-operation in the water area is the issue oriented agreement. If there is any single feature of the existing system that should be maintained into the future, this is it. There are two approaches that could be used in this area:

1. Issue Specific Agreements -- Essentially, this would be a continuation of the existing system. Specific water related issues would be addressed in individually negotiated federal-provincial agreements. Agreements on emerging issues could be entered into at any time. Either the provinces or the federal government could initiate a request for an agreement.

   Some changes in the process of deciding on agreements may be needed to adapt to reduced funding if fiscal constraint significantly affects this area of federal-provincial agreements. Under such circumstances, some flexibility would have to be reduced. For example, there may have to be a ceiling put on the amount of funding that goes to a particular province in a given year for such agreements; this might have to be broken down further into planning and implementation funding. Alternatively or additionally, topics and issues to be funded might have to be explicitly priorized according to the federal interest. The federal share of funding for proposed agreements might then vary according to these priorities. For example, for a top priority, the federal share would be 50 per cent; for a low priority it would be only 10 per cent. Any such changes, however, would not be well received by the provinces since the capacity to satisfy their interest would decline.

2. Umbrella Agreements -- Under this arrangement, the federal government would enter into an umbrella agreement with a province for a specific period of time (most likely, five years) pertaining to water programs. There would be provision for a series of issue specific subsidiary agreements within the umbrella agreement. Such an approach would be similar to the General Development Agreements or Economic and Regional Development Agreements used by DREE and DRIE. In the area of regional economic development, the arrangement could apply only to issue specific agreements or it could encompass a broader range

of federal-provincial activities related to water including, for example, the Flood Damage Reduction Agreement, Quantity Survey Agreements and joint projects not presently covered by the agreements.

An important advantage of the umbrella agreement approach is that it could provide a more focused and cohesive approach to federal-provincial involvement in the water area in provinces having such an agreement. It also would likely reduce duplication and overlap in negotiating, managing, coordinating and administering federal-provincial agreements and other activities in the provinces. This could be an important advantage in a period of fiscal constraint. An umbrella agreement approach would be conducive to the formation of a joint federal-provincial administrative group to oversee jointly sponsored water activity in the province. This would be one way of responding to the following suggestion made in New Brunswick's submission to the current Federal Inquiry: "the present arrangements with separate Federal-Provincial Agreements could be extended further to incorporate some kind of joint administrative group which would provide a co-ordinated focus for water administration in the province". Consolidation of this type also appears consistent with the trend toward consolidating water management functions in some provinces, e.g., in Saskatchewan, as noted previously, nearly all water related activities of the provincial government have been consolidated under the Saskatchewan Water Corporation. In New Brunswick, the office of Government Reform is considering recommendations to simplify water administration.

While an umbrella agreement could offer many advantages, it is not without problems. Such an arrangement might not be as well suited to responding to problems as they emerge. Such agreements are often for a specified period, e.g., five years, and subsidiary agreements are decided upon while the general agreement is being negotiated. New problems that emerge during the period of the agreement may have to wait to be addressed in a subsidiary agreement until a new general agreement is signed. Difficulties of this nature can be avoided to some extent, particularly in the case of smaller budget items, by having one or more subsidiary agreements that are somewhat open ended. For instance, the recently signed Manitoba ERDA contains a subsidiary agreement on Economic Development Planning that is quite general in nature and could accommodate a wide variety of planning studies. The main limiting factor in this subsidiary agreement is the budget limit.

Another problem could be that some provinces which presently participate in issue specifc agreements might refuse to participate in an umbrella agreement. This could lead to a fragmented

approach in which independently negotiated and operated agreements and projects would tend to dissipate the federal presence and reduce its influence in a province. An umbrella agreement might contribute to more cohesive and concentrated federal initiatives. This might be regarded as threatening by certain provinces which are especially sensitive to the matter of federal intrusion in the water area.

An especially difficult item to deal with in the umbrella agreement context would be federal-provincial agreements that involve several provinces. It would be virtually impossible to incorporate such agreements into subsidiary agreements of umbrella agreements, especially if some provinces chose not to enter into umbrella agreements. Most likely, such agreements would have to continue to be separate agreements outside of any umbrella agreement. This could noticeably reduce the advantage of umbrella agreements in some provinces.

CHAPTER 4

PROVINCE-WIDE AGREEMENTS

In addition to basin or water body oriented agreements, the federal government has entered into province-wide, federal-provincial agreements related to water. These agreements generally focus on one or two water topics and are usually applied to a number of water areas in a province. In contrast to basin or water body oriented agreements which occur only under the auspices of Environment Canada and The Canada Water Act, province-wide agreements have various sponsors. Some are sponsored by Environment Canada, but many are sponsored by other federal departments, in particular, the Department of Regional Industrial Expansion, and the former Department of Regional Economic Expansion.

Table 9 indicates the status of active programs sponsored by Environment Canada. Two main programs are involved, the Flood Damage Reduction Program and Water Quantity surveys. Efforts are presently under way to establish a Water Quality monitoring program. Both of the active programs were formalized several years after The Canada Water Act had been signed and, in both cases, the federal government has taken a leadership role in trying to get all provinces to participate in these programs. The programs represent a federal attempt to take a more co-ordinated and balanced approach to the topic. In each program there are certain principles to which the federal government and participating provinces are expected to adhere. The approach is co-operative in that participation by the provinces is voluntary and, beyond meeting the basic principles, there is considerable latitude to address each province's particular needs.

1. Flood Damage Reduction Program -- This pioneering program got under way in 1976 to replace what had in the past been a piecemeal approach by the federal government to deal with the problem of flood damages. It is intended to provide a comprehensive approach to the problem, rather than the generally narrow approaches that had typically been adopted in the past.

Central elements of the program have been the introduction of flood risk mapping and discouragement of further occupancy and development of high flood risk areas. Governments participating in the program must agree not to engage in, or to provide assistance for, undertakings that are vulnerable to flood damages in designated high flood risk areas. In such areas, federal disaster assistance will be restricted to structures built before designation and, in some circumstances, new structures that are flood proofed. Zoning on the basis of flood risk is encouraged.

The agreement structure of the program is innovative and quite adaptable. General Agreements are generally for a ten year period with the opportunity for amendment prior to that to incorporate needed changes or to extend the duration of the agreement. On entering the program, provinces also sign a Mapping Agreement. The General Agreement outlines the principles that will be adopted to reduce flood damages. The Mapping Agreements provide for flood risk mapping and designation of high flood risk areas. Additional province-wide sub-agreements such as a Flood Forecasting Agreement and a Studies Agreement can also be negotiated. As well, where requirements may emerge in some areas for costly flood protection projects, further agreements to study and implement such projects can be negotiated with the province. The latter would effectively be basin or water body oriented agreements dealing with flood protection (see Table 9). This means that the Flood Damage Reduction Program provides for both province-wide and basin or water body oriented agreements.

By 1982-83, eight provinces and territories were participating in the flood damage reduction program. Efforts are continuing to secure participation of the remaining three provinces and territories. This included Alberta and British Columbia, which have both been reluctant in recent years to participate in any federal-provincial programs. Although considerable time was involved in achieving the participation of the majority of provinces, this high level of participation and the extension of the duration of agreements with several provinces indicate the appeal and general appropriateness of this program as an instrument of federal-provincial co-operation. Concerns exist about the harshness of the designation process in some provinces, particularly Saskatchewan, which invoked a moratorium on designations in 1982. Some disagreement must be expected, however, in any such federal-provincial program where a condition for participation is the acceptance of a set of rather demanding principles established by the federal government.

2. Water Quantity Surveys -- Joint federal-provincial water quantity monitoring programs go back to 1894. For a long time

co-operation in this area occurred informally. In 1975, the relationship was formalized through signing of uniform cost-sharing agreements with each province. The agreements provide for a consistent approach to water quantity surveys across Canada and for sharing of the survey information between the federal and provincial governments. That agreements exist with all provinces is a solid indication of the desirability of this program. These surveys are regarded as a basic component of federal and provincial water research and management programs. In spite of their importance, water quantity surveys have been reduced in many areas as a result of government fiscal restraints.

As noted above, the federal government is also pursuing agreements across Canada on water quality monitoring. So far, an agreement has been reached with Quebec. The provincial submissions to the Inquiry and discussions held with provincial officials indicate a strong interest, in principle, for joint water quality monitoring. However, differences of opinion exist about the specific details of the monitoring systems. Here again, fiscal restraint is complicating the process. In spite of this, agreements are likely to be in place with most, if not all, of the provinces in the next few years.

Additional province-wide agreements are sponsored by other departments than Environment Canada. The nature and extent of such agreements varies from province to province. These agreements are especially significant in some of the western provinces where the Prairie Farm Rehabilitation Administration is active. Water related agreements in Manitoba since 1971, sponsored by other departments are presented in Table 10 (next page). The five agreements in this province provide a good indication of the type of activities sponsored by other departments throughout Canada. Table 10 indicates:

1. The major other department sponsoring water related federal-provincial agreements in Manitoba has been the Department of Regional Industrial Expansion (DRIE) and its predecessor, the Department of Regional Economic Expansion (DREE), which until recently included the Prairie Farm Rehabilitation Administration (PFRA). Three of five agreements in Manitoba were signed with this department. However, in the two most recent agreements, departments other than DRIE were the sponsors, i.e.,

TABLE 10

OTHER FEDERAL-PROVINCIAL AGREEMENTS ADDRESSING WATER IN MANITOBA SINCE 1971

Agreement	Timing	Lead Federal Agency	Activity	Water Related Subject Areas
Agricultural Service Centre Agreement	1972-1982	Dept. of Regional Economic Expansion (PFRA)	implementation	municipal water supply and waste disposal facilities
Canada-Manitoba interim subsidiary agreement on Water Development for Regional Economic Expansion and Drought Proofing	1980-1985	Dept. of Regional Economic Expansion (PFRA)	planning implementation	water supply and conservation; water management in water short areas; multiple purpose and diversion water supply projects
Canada-Manitoba subsidiary agreement on Value Added Crops Production	1978-1984	Dept. of Regional Economic Expansion	implementation	drainage and water conservation projects
Canada-Manitoba subsidiary agreement of Agri-Food Development	1984-	Dept. of Agriculture (PFRA)	implementation	organize conservation districts; drainage management and projects
Canada-Manitoba subsidiary agreement for Economic Development Planning	1984	Minister of State for Economic and Regional Development	planning	clarifying water issues in Manitoba

the Department of Agriculture and the Minister of State for Economic and Regional Development. This reflects the recent move of PFRA to the Department of Agriculture and also a change in approach in the way regional and economic federal-provincial agreements are organized and signed. In three of the agreements, PFRA, which has shifted back and forth between DRIE and Agriculture Canada, has been a major federal participant. Outside of the Inland Water Branch of Environment Canada, PFRA is the main federal water related agency operating in Manitoba.

2. The orientation of the agreements is toward the economic development aspects of water use. They focus on the commercial applications of water, in agriculture in particular, and on the role of water as an instrument or constraint to rural development. The emphasis is on making water-using applications more productive and in removing barriers to community and regional development that result from inadequate water supply or water supply systems. This focus on the economic dimensions of water can complement and conflict with the emphasis in Environment Canada agreements on the management and environmental aspects of water.

3. The agreements are predominantly oriented towards implementing water supply and management projects. A significant role is played by PFRA in delivering many of these projects. This is deemed to be a positive feature for the federal government as it enhances federal visibility.

4. Most of the agreements are subsidiary agreements to a general or umbrella Canada-Manitoba Agreement on economic and regional development. The two earlier subsidiary agreements are under the General Development Agreements of 1974, while the two recent subsidiary agreements are under the Economic and Regional Development Agreement of 1984. The latter replaces the General Development Agreement. Only the Agricultural Service Centre Agreement stands alone. In contrast, nearly all agreements sponsored by Environment Canada are "stand alone" agreements. The only exceptions are the sub-agreements under the Flood Damage Reduction Program.

It is apparent from the Manitoba situation that province-wide agreements sponsored by departments other than Environment Canada represent an important aspect of federal-provincial co-operation in regard to water. Agreement activity sponsored by other departments is very substantial in some provinces, possibly approaching and exceeding the level of activity sponsored by Environment Canada. The involvement of other departments in water related federal-provincial agreements introduces a

new dimension to this topic. It opens the possibility for competition among federal departments to sponsor water related agreements and also the opportunity for provinces to "shop around" for the best deal when they are interested in securing federal support. This has been a source of concern among Environment Canada officials in the Prairie Provinces, where at least one province (Saskatchewan) went to both Environment Canada and DRIE to get the best possible deal on some water related projects it wanted to pursue. Because it could provide 100 per cent funding of some projects, DRIE was at an advantage over Environment Canada which could at most 50/50 cost-share. Furthermore, projects sponsored by Environment Canada must have a benefit-cost ratio greater than one, whereas this has not always been the case for those sponsored by DRIE or the Department of Agriculture. The combination of competition among departments and imbalances in the capability of each department to respond can be detrimental to achieving a cohesive federal approach to federal-provincial co-operation in the water area. On the other hand, it can be advantageous to the provinces in that it gives them options for dealing with the federal government.

In regard to the area of province-wide agreements, several alternatives were identified in discussions with provincial officials:

1. Continuation of Existing Programs -- There was considerable interest in continuing the existing federal-provincial Flood Damage Reduction Program, the Water Quantity surveys and getting water quality monitoring agreements in place. Concerns exist about cutting back the water quantity surveys and suggestions were made that rather than cut back in this area, other agreements should be cut back more. There is a growing interest in eastern Canada, particularly New Brunswick and Prince Edward Island, in entering into an economically oriented agreement on water.

2. Possible New Areas for Province-Wide Programs -- Provincial officials in many provinces favoured having the federal government move into some new province-wide programs. Most recognized that this might be very difficult to accomplish with the increasing level of financial restraint at both the federal and provincial levels. Topics identified as possible candidates for such programs were:

(a) water pricing -- a province-wide program might be established to encourage provinces to adopt more comprehensive water pricing systems. The program could include joint participation in water valuation studies, design of pricing systems and design of implementation systems. Actual implementation would not be included since this would be regarded as excessive intrusion into provincial water management responsibilities. There appears to be a growing recognition that water pricing is an important dimension of future water management. The combination of increasing water scarcity and the need for revenues to offset fiscal cutbacks is making this an increasingly appealing option to consider. At the same time, individual provinces are reluctant to move into this area because if they act alone, the competitive position of their economies could be adversely affected. This seems to be an appropriate situation for federal leadership and a province-wide agreement program would appear to be a suitable mechanism. A key to being able to carry out such a program would be getting several provinces to enter into agreements at the same time during the initial phase of the program. For the reason noted above, it is unlikely that any province would be willing to be the first in.

(b) river basin planning -- province-wide agreements for this area were discussed earlier in the report.

(c) soil and water conservation districts -- Ontario and Manitoba both have conservation districts. Ontario's system is extensive and well established, while the one in Manitoba is more recent and small scale. These districts provide the opportunity for municipal governments to engage in region-wide water management. The suggestion was made by one provincial official interviewed that a province-wide federal program should be established to encourage more extensive development of soil and water conservation districts. The program could include assistance for establishing and operating such districts, preparing district conservation plans, undertaking demonstration projects, development of rural zoning systems and preparation of conservation management manuals. Specific conservation works would be subject to individual agreements. A key issue related to adopting this type of program is the uncertainty about how effective conservation districts can be. As noted earlier, there is much concern in Ontario about the inadequacies of their conservation authorities.

(d) upgrading and rehabilitation of municipal water supply and sewer systems -- officials from Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia and Prince Edward Island identified the need to rehabilitate and upgrade municipal water and sewer systems as a major area of concern and cost that is emerging for them. They all thought this was a key area that the federal government should cost-share with the provinces. Several noted the need for some kind of federal-provincial program that would be available to all provinces. An extensive review of this topic is being carried out in a separate study for the Inquiry.

(e) toxic contaminants -- this topic under a variety of names, including hazardous wastes, was identified by officials in Nova Scotia, Ontario, Prince Edward Island and Manitoba as needing special attention in the future. While work is currently under way on this topic within the federal and some provincial governments, more of an orientation to the water related aspects was required.

The variety of federal water related agencies led several people that we interviewed to make the following suggestion:

Consolidation of Federal Water Agencies -- With government fiscal constraints and growing interest in water management, a possible emerging trend is consolidation of water related activities within a government. Some provinces such as Manitoba have had a significant degree of consolidation of water related functions under the Water Resources Branch for many years. The most dramatic recent development on the provincial water scene in Canada has been the creation of the Saskatchewan Water Corporation, which consolidated a diverse array of that province's water related agencies. There are indications that New Brunswick may also be moving in the direction of consolidation. The idea of consolidating water related agencies could also be applied at the federal level. Several of the provincial officials that we spoke to suggested that it would be advantageous to consolidate the water related activities under Environment Canada, particularly the Inland Waters Branch and those under the Department of Agriculture (particularly PFRA) into a single agency or at least into a single department. The main reason given for this is that it would result in a more uniform approach by the federal government in its water related dealings with the provinces. Some of the confusion of dealing with the federal government would be reduced. There might be faster turnaround times in their dealings with the provinces as the direction could be clearer and interdepartmental consultation time might be reduced.

From the federal perspective, such a move could help to rationalize their water related activities and ensure a more cohesive approach to dealing with provinces on water issues. It could alleviate inter-departmental competition to participate in federal-provincial agreements and eliminate situations where provinces can shop around for the best deal on water agreements.

There are many different ways that water related agencies could be moved around to achieve consolidation. All will pose substantial problems. While opposition can be expected to most moves by the agencies making the move and the departments that are losing agencies, it is also apparent that such moves could produce significant mismatches for the departments receiving the added agencies. Also, such moves could change the present balance between environmental and economic development aspects of water in dealings with the province. If, for example, the consolidation was into DRIE, there would likely be more emphasis placed on the economic dimensions than at present; if the consolidation was into Environment Canada, there would be more emphasis on the environmental dimensions. Such shifts in emphasis would be viewed positively by some provinces and negatively by others.

An alternative approach to shifting agencies between existing departments would be to form a new Water Department. This would be analogous to the Saskatchewan approach. This approach would require the federal government to give water as an area of responsibility a much higher profile than it already has, which in the present climate, is difficult to see happening. For example, moving PFRA to such an organization would suggest that water considerations supercede economic development considerations. This clearly is not the case and is not likely to be for some time.

CHAPTER 5

NON-AGREEMENT ACTIVITIES

While the mainstay of federal-provincial co-operation in the water area has been federal-provincial agreements, there have also been co-operative federal and provincial activities outside the agreement sphere. There is very little information on these in the documents that we reviewed as part of this study; however, our discussion with provincial officials indicated that this was nevertheless an important aspect of federal-provincial co-operation. All of the officials that we interviewed mentioned this area and expressed a desire for more of this type of co-operation.

Owing to the limited documentation, this aspect of federal-provincial co-operation can only be addressed in a piecemeal manner. Based on the limited investigation undertaken, the following items pertinent to non-agreement activities have been identified:

1. The Canada Water Act proposed the formation of federal-provincial Consultative Committees on Water. These committees were supposed to meet periodically to review federal and provincial priorities and establish a basis for joint activity. While these committees appear to have been a good idea in principle, they did not materialize as planned and at present either they do not exist or are dormant in all provinces. Instead, their intended function has been handled through more casual discussions between senior federal and provincial officials who typically had numerous opportunities for contact through their involvement in management and co-ordination committees of the federal-provincial agreements. The Consultative Committees were considered redundant in this environment. Although these committees are not in operation, at least one variant of them exists. Senior federal and provincial water officials in the Atlantic provinces get together twice a year to exchange information and address relevant concerns and issues.

2. Exchanges of technical information occur between federal and provincial officials and scientists. This is sometimes done through formal channels after an exchange of letters or less formally through personal interaction. This is quite a common

form of federal-provincial co-operation and was highly regarded by officials in most provinces, including British Columbia and Quebec.

3. Joint projects are sometimes carried out between federal and provincial water agencies. The funds for these projects, which are handled outside an agreement framework, come from the budgets of the agencies involved. This type of activity occurs in situations where federal-provincial co-operation is needed but going the agreement route is inappropriate, e.g., where the size of the project is relatively small and a fast response is required. Pre-planning studies fall into this category. As noted in Tables 3 and 4, there have been at least six pre-planning studies done to date.

Non-agreement work-sharing activities will likely be a continuing feature of federal-provincial co-operation. For the most part, such activity occurs naturally and does not require significant policy initiatives. Some provincial officials thought that, in the future, with fiscal constraints becoming more pronounced, non-agreement activities would become more important because of their flexible and often low cost nature. In view of this possibility and the interest shown by provincial officials in this area, we suggest that a separate, more detailed study be undertaken on the non-agreement aspect of federal-provincial co-operation. The current study provides only a glimpse of this area.

Three suggestions were made about future possibilities in the non-agreement sphere that are relevant to federal-provincial co-operation:

1. Contracting of Federal Expertise -- The federal government, through its water research and management programs, has developed the best expertise in the country in many areas, e.g., toxic chemicals, complex water regime analysis. The suggestion was made that it should be willing to make that expertise available to provinces on a contract basis. Such an arrangement would give provinces access to this expertise in a form which would best serve their needs. While the provinces at present generally have some access to this expertise through intergovernmental channels, such access does not generally permit the exclusive use on a provincial project of the federal officials involved.

   This type of approach would be especially appealing to those provinces that are very concerned about federal infringement on provincial jurisdictions, since it could enable these and

other provinces to access federal resources without any loss of control. This may be one of the few ways of increasing the degree of federal-provincial interaction with such provinces. In terms of the federal government, it would be a revenue source; however, it would also likely be disruptive to the research and management activities being carried out at the federal level. Furthermore, provinces not using such a service might consider it an unfair advantage for those that do use it. In a similar vein, unpleasant situations could emerge if several provinces wanted to contract for a particular type of expertise at one time and not all could be serviced.

2. Sharing of Equipment and Personnel -- One provincial official noted that the federal and provincial governments have almost parallel activities going on in some areas. While these activities are generally oriented to different purposes (e.g., research at the federal level, day-to-day management at the provincial level), they involve similar types of equipment and personnel with similar backgrounds. An example was given of information gathering and water system modelling on the Great Lakes. Where such situations exist, federal agencies should be prepared to initiate or entertain discussions with appropriate provincial agencies for sharing of very expensive equipment and very specialized personnel. This would be done at the agency level, through agency budgets, rather than through a federal-provincial agreement. This official argued that growing government fiscal constraints could force this situation and prompt the agencies at both levels to forego some of their lesser objectives to achieve a resource sharing arrangement.

3. Policies and Priorities Committee -- Nova Scotia, in its submission to the Inquiry, suggested that there needed to be a formal mechanism that facilitates co-operation and co-ordination of federal and provincial water activities in a given province. Such a group would be responsible for proposing priorities and policy initiatives and being more anticipatory than the project specific, generally reactive consultative mechanisms that presently exist. This is very similar to the aforementioned federal-provincial Consultative Committees on Water which never really took hold. It could be, however, that in an environment of major fiscal constraint, such a mechanism could resurface out of the need to make better use of increasingly scarce federal and provincial resources for water management.

CHAPTER 6

CONCLUDING PERSPECTIVES

The review and assessment conducted during the course of this study has confirmed that, during the past fifteen years, there has been a great deal and wide variety of federal-provincial co-operation activity in the water area. Much of this co-operation has been formalized into federal-provincial agreements, although non-agreement activity has also been important. All provinces have participated in co-operative programs, some aggressively, others apprehensively.

Based on the experience to date as well as on an appreciation of current and anticipated water issues, it is clear that a continuing requirement exists for significant activity in the sphere of federal-provincial co-operation. This requirement may even be expanding as water related problems and opportunities become more widespread and complex. Notwithstanding underlying requirements, however, the actual amount of co-operative activity may very likely become reduced in the future, primarily as a result of federal and provincial governments' cutbacks on expenditures to control mounting deficits.

In this report, the range of existing programs and mechanisms for federal-provincial co-operation in the water field has been reviewed and a variety of alternative arrangements for federal-provincial co-operation in the future have been identified. Only a portion of these can be adopted, particularly with the increasingly constrained fiscal environment. While all alternatives merit consideration, some would seem to be more relevant than others. Probably most important is continuation of those arrangements and programs that have been well received and deemed to be effective to date. In particular, any future initiatives by the federal government should accommodate issue specific agreements. Such issue oriented agreements are flexible and tend to be responsive to changing priorities and fiscal circumstances. They are also attractive

in that they provide a more adaptive framework within which jurisdictional issues may more effectively be accommodated. Province-wide agreement programs, including the Flood Damage Reduction Program, water quantity survey program and a joint water quality monitoring program, merit priority consideration. Water pricing, with its revenue generating capabilities, will be increasingly appealing and merits examination as the basis for a province-wide program.

Any programs that could enhance federal and provincial government revenues or produce cost savings undoubtedly will warrant special attention in the future. In this regard, the suggested arrangements for co-ordinating agreements under a single umbrella, consolidating federal water related programs, sharing federal and provincial water related program resources and contracting of federal expertise could be relevant. While each of these arrangements will impinge on existing jurisdictions and preferences, the pressure of declining program resources may prompt the governments and agencies affected into activities that would not have been acceptable when the government fiscal environment was less strained.